

Title (en)
Spring body and process for its production.

Title (de)
Federkörper und Verfahren zu seiner Herstellung.

Title (fr)
Élément-ressort et procédé pour sa fabrication.

Publication
EP 0187888 A1 19860723 (DE)

Application
EP 85100529 A 19850118

Priority
EP 85100529 A 19850118

Abstract (en)
1. A spring element consisting of a block made of a resilient elastomere material interspersed with cylindrical or prismatic channels, which channels (1) intersperse cavities (2) formed in the block (5), the greatest inside cross-section of which cavities in the plain located at right angles to the channel axis is greater than the cross-section of the channels in that plain, and which cavities (2) further exhibit at right angles and parallel to the channel axis (4) an axis ratio in the range from 1:3 to 3:1, particularly of at least approximately 1:1, the channels (1) interspersing the cavities (2) so that the centers (3) of the cavities lie upon the axis (4) of the channels and all the cavities interspersed by one respective channel mutually are spaced at equidistant intervals, wherein the block (5) is interspersed by at least two sets of mutually parallel channels (1) which cross each other three-dimensionally in different plains and do not intersect, and which exhibit an equal mutual angular interval from section to section in projection onto the radial plain.

Abstract (de)
Der Federkörper besteht aus einem Elastomerblock (5), der mit zylindrischen oder prismatischen Kanälen (1) durchsetzt ist, die ihrerseits im Elastomerblock (5) ausgebildete Hohlräume (2) durchsetzen, deren größter lichter Querschnitt in der senkrecht zur Kanalachse liegenden Ebene größer als der Querschnitt der Kanäle in dieser Ebene ist. Durch diese Art der Hohlraumdurchsetzung des Elastomerfederkörpers werden eine optimale Kompressionsspannungsverteilung im Federkörper verbunden mit einer optimalen akustischen Dissipationsdämpfung erzielt.

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Citation (search report)
• [X] DE 3017379 A1 19811112 - HUELSTA WERKE HUELS KG [DE]
• [A] US 3209380 A 19651005 - BENJAMIN WATSKY
• [A] FR 1348702 A 19640110 - DUNLOP SA
• [A] US 3543337 A 19701201 - MEYN JOHN E
• [A] GB 1370185 A 19741016 - BANKS C H
• [A] EP 0110233 A2 19840613 - PIRELLI [IT]
• [A] US 2295363 A 19420908 - SCHOTT JOHN F
• [A] DE 2516539 A1 19761028 - HERBST ALBERT
• [A] DE 475849 C 19290502 - JOHANNES WEISS
• [A] FR 2298737 A1 19760820 - AIRLEX [FR]
• [X] PATENTS ABSTRACTS OF JAPAN, Band 1, Nr. 96, 30. August 1977, Seite 2642 M 77; & JP - A - 52 37 675 (SHIGEYA KAWAMATA) 23.03.1977

Cited by
EP0379689A1; EP0320608A3; EP0445012A1; FR2658886A1; EP0379678A3; US5110660A; EP0317732B1; EP0192936B1

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